

AMENDMENTS TO THE CLAIMS

1. (Cancelled)
2. (Currently Amended)      ~~The semiconductor device of claim 1~~  
wherein A semiconductor device comprising:  
    a die having:  
        a semiconductor structure that includes a plurality of device regions  
        formed in and over a substrate, the device regions being conductive; and  
        an interconnect structure that contacts the semiconductor structure,  
        and forms a top surface of the die, the interconnect structure including:  
            a dielectric structure; and  
            a plurality of layers of metal that are formed in and isolated by  
            the dielectric structure, each metal layer having a plurality of metal traces that are  
            electrically connected to the device regions; and  
        a conductive region formed over the top surface of the die above the plurality  
        of layers of metal, the conductive region includes including silicon.
3. (Original)      The semiconductor device of claim 2 wherein the silicon is attached via an adhesive.
4. (Original)      The semiconductor device of claim 2 and further comprising:  
        a first via that makes an electrical connection with a region of a metal trace and a first end of the conductive region; and  
        a second via that makes an electrical connection with a region of a metal trace and a second end of the conductive region.

5. (Currently Amended) The semiconductor device of claim 2 ~~4~~ wherein the conductive region has a concentration of dopant atoms.

6. (Original) The semiconductor device of claim 2 and further comprising:

a dielectric region formed to contact the conductive region; and  
a conductor region formed to contact the dielectric region.

7. (Original) The semiconductor device of claim 6 and further comprising:

a first via that makes an electrical connection with a region of a metal trace and the conductive region; and

a second via that makes an electrical connection with a region of a metal trace and the conductor region.

8. (Original) The semiconductor device of claim 7 wherein the conductive region has a concentration of dopant atoms.

9. (Original) The semiconductor device of claim 2 wherein the dielectric structure includes a plurality of layers, including an overlying passivation layer, the conductive region being formed over the passivation layer.

10. (Currently Amended) The semiconductor device of claim 9 and further comprising:

a plurality of contacts formed in the dielectric structure, the contacts electrically connecting the device ~~conductive~~ regions to the metal traces that are formed from a first layer of metal;

a plurality of vias formed in the dielectric structure, the vias electrically connecting vertically adjacent metal traces and regions; and

a plurality of pads formed in the dielectric structure, the pads being connected to a number of vias to form external points of electrical connection.

Claims 11-18 (Cancelled).

19. (Currently Amended) ~~The semiconductor device of claim 1~~  
wherein A semiconductor device comprising:

a die having:

a semiconductor structure that includes a plurality of device regions formed in and over a substrate, the device regions being conductive; and

an interconnect structure that contacts the semiconductor structure, and forms a top surface of the die, the interconnect structure including:

a dielectric structure; and

a plurality of layers of metal that are formed in and isolated by the dielectric structure, each metal layer having a plurality of metal traces that are electrically connected to the device regions; and

a conductive region formed over the top surface of the die above the plurality of layers of metal, the conductive region is being non-metallic.

20. (Original) The semiconductor device of claim 19 wherein the conductive region has a concentration of dopant atoms.

Claims 21-22 (Cancelled)

23. (Currently Amended) ~~The semiconductor device of claim 22~~  
wherein A semiconductor device comprising:

a die having:

a semiconductor structure that includes a plurality of conductive regions formed in and near a substrate; and

an interconnect structure having a top surface, and a bottom surface that contacts the semiconductor structure, the interconnect structure having:

a dielectric structure,

a plurality of metal interconnects formed within the dielectric structure, the metal interconnects making electrical connections with the plurality of conductive regions, and

a test structure that contacts the top surface, the test structure is including a capacitor;

a first opening formed in the dielectric structure, the first opening extending from the top surface down to a first region on a metal interconnect; and

a first conductive structure formed in the first opening to make an electrical contact with the first region, and on the top surface to make an electrical connection with the test structure.

24. (Cancelled)

25. (Currently Amended) The semiconductor device of claim 22 23 and further comprising:

a second opening formed in the dielectric structure, the second opening extending from the top surface down to a second region on the metal interconnect; and

a second conductive structure formed in the second opening to make an electrical contact with the second region, and on the top surface to make an electrical connection with the test structure.

Claims 26-27 (Cancelled)

28. (Previously Presented) The semiconductor device of claim 25 and further comprising a third opening formed in the dielectric structure, the third

opening extending through the metal interconnect to break an electrical connection between the first and second regions of the metal interconnect.

29. (New) A semiconductor device comprising:

a die having:

a semiconductor structure having a plurality of device regions, the device regions being conductive; and

an interconnect structure that contacts the semiconductor structure, the interconnect structure having:

a dielectric structure; and

a plurality of metal interconnects formed within the dielectric structure, the metal interconnects making electrical connections with the plurality of device regions, and

a test device formed on an exterior surface of the die, the test device including a region of silicon.

30. (New) The semiconductor device of claim 29 and further comprising:

a first via that is electrically connected to a device region and a first end of the test device; and

a second via that is electrically connected to a device region and a second end of the test device.

31. (New) The semiconductor device of claim 30 wherein the region of

silicon has a concentration of dopant atoms.

32. (New) The semiconductor device of claim 29 and further comprising:

a dielectric region formed to contact the region of silicon; and

a conductor region formed to contact the dielectric region.

33. (New) The semiconductor device of claim 32 and further comprising:  
a first via that is electrically connected to a device region and the region of  
silicon; and

a second via that is electrically connected to a device region and the  
conductor region.

34. (New) The semiconductor device of claim 33 wherein the region of  
silicon has a concentration of dopant atoms.